CASE STUDY

LINCOLN FINANCIAL FIELD, HOME OF THE PHILADELPHIA EAGLES



FACILITY STATS

Location: Pattison Avenue, Philadelphia

Opened: August 3, 2003
Seating Capacity: 68,532
Owner: City of Philadelphia
Operator: Philadelphia Eagles

Venue Uses: NFL games (primary), MLS games, collegiate football games,

collegiate lacrosse games, Monster Jam, and a variety of concerts.

Construction Cost: \$520 million (\$647 in 2012 dollars)

THE EAGLES' GREENING STORY: MOTIVATIONS, CHALLENGES AND LESSONS FROM THE FIELD

The Philadelphia Eagles have been pioneers in the greening of professional sports operations and supply chains since establishing their Go Green program, with the help of the Natural Resources Defense Council (NRDC), back in 2003. From switching to recycled paper products nearly a decade ago to installing the most extensive onsite renewable system of any U.S. sports stadium in 2012, the Eagles work to promote the social, ecological and financial benefits of going green.

WHY GO GREEN?

"Our greening program really all began at the ownership level with the opening of the NovaCare Complex—the Eagles' training facility—"and the construction of Lincoln Financial Field in 2003," says Don Smolenski, president and former chief operating officer, who has been with the Eagles since 1998.²

According to Smolenski, the owners of the Philadelphia Eagles, Jeffrey and Christina Lurie, made environmental stewardship part of the organization's mission statement before ecological social responsibility became more commonplace in the sports industry. "Our owners are philanthropic by nature; it's a very important part of who they are. That philanthropy carries over in their personal lives as well as with the team," says Smolenski. "The green message resonates with our owners. They recognize the incredible platform that professional sports and the Philadelphia Eagles have to demonstrate social good. They made a strong green commitment and fully believe that the Eagles can make a difference by reducing our environmental impacts."

In a press statement, the Luries explain the importance of the green commitment made by the Eagles, both as a business and as members of the Philadelphia community. "We search relentlessly for ways to reduce our environmental footprint, which is a daunting task when each and every home game draws 70,000 people to Lincoln Financial Field. Yet every day, in a variety of ways, we strive to conserve more, recycle more, and consume less," say the Luries. "This commitment makes good business sense, but more importantly, it helps our Eagles organization to fulfill our role as a community champion by inspiring others to take a step forward and 'Go Green!' to help save our wonderful planet."

"THE GREEN MESSAGE RESONATES WITH OUR OWNERS. THEY RECOGNIZE THE INCREDIBLE PLATFORM THAT PROFESSIONAL SPORTS AND THE PHILADELPHIA EAGLES HAVE TO DEMONSTRATE AND PROMOTE SOCIAL GOOD,"

says Don Smolenski, president and chief operating officer.

WHERE TO START?

The Eagles' green team began by asking questions. "We started by talking with people, with advisers like NRDC, the Sexton Group and others," says Smolenski. "Our program evolved slowly, with a little blue can at everyone's desk. Then it grew from there, year after year."

Smolenski explains that it was all about getting the right people at the table, including staff from all departments, and developing a comfortable environment for sharing ideas and making a plan. "The main issue early on was trying to establish a comfort level by making sure everyone was on the same page and then deciding how to proceed with our green mission in order to develop a strong program. It's a journey."

STANDOUT GREENING ACCOMPLISHMENTS

- ★ The Eagles are installing 11,000 onsite solar panels and 14 onsite wind turbines to make Lincoln Financial Field the first professional stadium in the United States capable of generating all of its electricity onsite.
- ★ The Eagles have implemented a variety of energy conservation programs to reduce electricity consumption by more than 33 percent.
- ★ 100 percent of team operations are powered by clean energy generated on U.S. wind farms. The Eagles purchase 14 million kilowatt-hours of renewable energy credits annually.
- ★ From 2003 to 2010 the Eagles conserved enough energy and purchased enough green power to provide electricity for 7,150 average American homes for a year.
- ★ With increased monitoring and management and updated field infrastructure, the Eagles have cut their water use by 21 percent.
- ★ The Eagles have converted all of their tissue paper products to 100 percent post-consumer recycled paper, yielding an annual savings of 10 tons of paper or the equivalent of about 170 trees.
- ★ From 2003 to 2010 the Eagles' paper reduction and recycled paper purchasing efforts saved approximately 6,000 trees.
- ★ 37 percent of all chemical cleaning products used in 2010 (169 gallons) came from environmentally friendly product lines.
- ★ All of the Eagles' requests for proposals (RFPs) mandate that vendors propose green-certified materials as standards.

For the Eagles, this meant taking the time to introduce staff to environmental issues, making sure they understood the importance of the greening work and felt comfortable sharing ideas. "Now the dialogue and conversations are seamless. If you see something, there's no apprehension about saying something or asking a question. We feel like we're educated enough now to ask the right questions of our partners, which is the best place to be."

The Eagles figured out early that greening involves prioritizing. "Instead of implementing 10 things at once, we took two or three things and tried to implement them well," says Smolenski. "Once we had those first programs down, we took two or three more, then two or three more, then four or five more. Quality was important."

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say Jeffrey and Christina Lurie, owners of the Philadelphia Eagles.

Smolenski's team prioritized paper reduction strategies and the purchasing of recycled paper first, which were a natural fit because the financial savings from cutting paper use could pay for better paper products made from post-consumer recycled content. "We used to print 50,000 media guides; now we produce fewer than 2,000 guides and have everything else online," Smolenski says. "That's a huge tonnage of paper that we eliminated right away, not to mention some great cost savings. Now all of our tissue products are made from 100 percent post-consumer recycled paper. We've saved thousands of trees. We also invested in cardboard balers and aluminum balers," he adds.

The next step for the Eagles was tracking their progress, which took their project to a new level. "Measurement is really important. Once we developed better measurement procedures, we really started to gain momentum," says Smolenski. "That was big. You need to measure what you do and quantify savings. We track our figures throughout the stadium every month. It's about accountability at the end of the day. If you don't have accountability, how do you show your progress?"

The Eagles have a few systems in place to help track their performance. "We have an organization-wide meeting at the end of the season every year where all departments bring their annual data for review," explains Smolenski. "For example, the facilities department brings all energy, water and waste data stadium-wide; administration brings data on how much recycled-content paper we bought; merchandising brings data on the percentage of post-consumer recycled content in the catalog, among other products." In order to get more precise data, the Eagles also invested in scales to weigh materials collected for composting and recycling.

Smolenski emphasizes the importance of working closely with existing partners to advance the Eagles' green goals. "Our operations team would also work with external partners like ARAMARK, which covers the concessions and cleaning for the facility. We sat down with ARAMARK and conveyed to them that greening was important to us. They recognized that, and they made it important to themselves. As a result you start to develop this team, a real partnership, where everyone is working together on greening and efficiency," he

"WE'RE A BIG BUILDING. WE CAN FIT CLOSE TO 70,000 PEOPLE. WE USE A LOT OF ENERGY AND WATER AND GENERATE A LOT OF WASTE, BUT THAT DOESN'T MEAN WE HAVE TO BE WASTEFUL," says Smolenski. "WE TRY TO BE RESPONSIBLE AND HAVE OUR FANS HELP US IN THAT EFFORT TO MITIGATE OUR ENVIRONMENTAL IMPACTS."

explains. "You're able to establish a free-flowing dialogue where everyone can raise ideas and explore new ways of doing things, whether you're talking about cleaning chemicals or compostable serviceware."

CHALLENGES: OVERCOME AND ONGOING

Lincoln Financial Field faces many of the same size-based challenges that most sports venues have to grapple with. "We're a big building. We can fit close to 70,000 people. We use a lot of energy and water and generate a lot of waste, but that doesn't mean we have to be *wasteful*," says Smolenski. "We try to be responsible and have our fans help us in that effort to mitigate our environmental impacts."

From entertaining recycling signs posted around the venue to recycling bags for tailgaters, the Eagles match commitment with humor and convenience to engage fans in their green programs. "Our approach to fan engagement is just to lead by example. We pair all of our garbage cans with recycling containers to make it easy for people to recycle," says Smolenski. "We have green teams that hand out recycling bags for tailgaters to use and leave by their cars, and we pick them up later. Fans appreciate our recycling program, take part in it, and we feel like our message resonates with the community, even if there isn't always a numeric way of keeping track of that influence."

At one point the Eagles' waste system relied on trash chutes throughout Lincoln Financial Field and a team of staff that would sweep the facility with carts to pick up bags of recyclables. The system became problematic; the pickup routes were taking longer and getting cumbersome as the Eagles recycled more and more material. "So we flipped the system," says Smolenski. "We converted all of our trash chutes to recycling chutes, and we now use carts to pick up the trash."

"Thanks to our transformed waste stream, among other initiatives, we're now pushing upwards of a 75 percent waste diversion from landfill, and we're trying to get that higher and higher," Smolenski notes proudly. "From August through December of 2011, during our heaviest time of the year, we had an average diversion rate of 77 percent. For 2011 as a whole, we were at 72 percent diversion. Since

ONSITE RENEWABLE ENERGY PROJECT

By December 2012, the Eagles plan to have 11,000 solar panels and 14 wind turbines installed around Lincoln Financial Field producing 3 megawatts of electricity (about six times the power needed for home games). Smolenski explains how the Eagles were able to take on this massive project: "We entered into a 20-year relationship with NRG, headquartered in Princeton, New Jersey, which has really taken a leadership position in this area. The deal is structured so that NRG provides the upfront capital, which is in excess of \$30 million. In return we entered into a long-term power purchase agreement with NRG at a rate that grows at a fixed percentage over time. That rate was about the rate we've been paying historically, with a set annual increase year after year. That provides us with the ability to manage the expense. From a business perspective, the arrangement provides us with some predictability around the energy expense, which is our largest operating expense for the facility. That is important because it doesn't make us subject to the conditions of the marketplace, which can be tough to manage at times. NRG was also able to take advantage of some federal programs that promote renewable energy, which also helped with the financials. NRG is a Fortune 500 company, and they really believe in this work. Greening is a component of their business mission, they're not just dabbling, and it's a good fit all around."

February 2012 our diversion rate is up to 99 percent, a great accomplishment, even though it's during the off-season."

Smolenski attributes some of the Eagles' success to setting a high bar for their green program. "It's definitely an evolutionary process, but an outgrowth of that is setting big green goals," he explains. He says the weight of the Eagles' brand also plays an important role. "Our brand, what the Eagles and the NFL represent, is influential. So when you sit down with ARAMARK and a partner like SCA, which makes paper products, you can have good conversations about napkins made with post-consumer recycled paper," says Smolenski. "Initially they may say 'Oh, that's going to cost more,' but by working collaboratively and using the influence of the Eagles and ARAMARK brands, we could get recycled-content paper napkins at the same or even a lower cost than we could get non-recycled paper napkins. And for us that's a no-brainer; we're definitely doing that. And all our procurement discussions went that way."

Once the Eagles demonstrated their long-term commitment to greening, their partners not only joined their mission but also helped overcome ongoing challenges. "The general managers at ARAMARK are really into our greening work; they feel part of it and take ownership of it, which is awesome. They're always out looking for new products and opportunities," say Smolenski. "For example, for a while now

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we've been looking for a compostable wrapper for our hot sandwiches," such as cheesesteaks. "It was our last packaging hurdle as everything else—all cutlery, plates, napkins and cups—is compostable. So we were searching with ARAMARK, we kept looking and kept pushing, and at the end of 2011 we were finally able to find a sandwich wrapper that is compostable but still keeps the sandwiches warm and fresh. So we're now able to raise our diversion goals and achieve a higher rate of success. By building on relationships within our industry, we can set the bar higher and can better take advantage of opportunities."

The Eagles don't yet collect compostables around the stadium concourse, but they do sort waste by hand after the game. Since 2009 they've worked with ARAMARK to implement composting throughout back-of-house operations and aim to move to front-of-house composting as well. "We started with one kitchen and then slowly worked our way up to composting in all kitchens and all backof-house operations," says Smolenski. "When we started in 2009 there weren't any facilities that took commercial composting. We could only find a farmer from Neshaminy [in Pennsylvania] who literally came with his truck to load up our compost. But as we added more kitchens, we quickly had too much for him. So we had to wait for larger facilities to come online and for the market to grow," says Smolenski, who says that patience and perseverance made their composting program possible. "Finally a facility in Delaware could accept our material at the scale we needed."

The Eagles were able to grow their program and gain momentum by building on smaller successes like slowly improving their procurement practices and waste stream management. "There are little success stories like that along the way. And those success stories are often ideas that your team members and staff brought to the table, so they really feel good about the green wins," says Smolenski. "Those little success stories encourage more idea sharing and more successes, which lead us to where we are today, embarking on a huge project with NRG to install 11,000 solar panels and 14 wind turbines to produce almost 3 megawatts of energy from renewable sources. It's all doable, but it takes time. As long as you stay committed to the goal, you can get there."

When it comes to financing onsite renewable projects or purchasing renewable energy credits (RECs), Smolenski observes that the market has changed dramatically. The initiatives that may have seemed too expensive before are now very accessible. "Several years ago, when we started to purchase wind-based RECs to offset our electricity use, they were expensive," he says. "It cost about six figures to offset approximately 30 percent of our electricity use. Today we can offset 100 percent of our use in the very low five-figure range. Unless you're already involved in or are investigating projects like purchasing offsets, you may think that it's still cost-prohibitive to pursue those kinds of initiatives, but it's really not the case anymore."

LESSONS FROM THE FIELD

GET BUY-IN FROM TOP TO BOTTOM: "If you don't have the support of all of your managers, department heads and all employees, you won't be able to effectively implement your green programs," Smolenski states. "We often say, 'You need to motivate, build momentum and then measure to achieve success.' Once we were able to get buy-in at the management level, we were able to really grow the program. It was their initial involvement and their embracing of the issue that allowed us to build momentum," he explains. "That is everything from our HR and administrative team doing post-consumer and chlorine-free recycled paper work to our operations team, especially waste operations, evaluating how they were commissioning the building, improving the efficiency of the building management systems and working on the heating systems."

EDUCATE STAFF AND ESTABLISH A COMFORT LEVEL FOR THE PACE OF YOUR GREENING PROJECTS:

According to Smolenski, it's important to educate all staff about the importance of a green program from the outset. "When we started with the Sexton Group, our consultants, there was a desire to come racing out of the gate. But that wasn't the mode that we operated in or that people felt comfortable in. There was some apprehension," he adds. "We needed to go through a learning period, where we learned from each other first through dialogue. Through good communication we got to a point where everybody, including all partners, recognized the importance of and embraced the green project. We were over the first hurdle. Then we needed to work together to figure out how best to implement the project."

MAKE YOUR ACCOMPLISHMENTS TANGIBLE: Convert your savings into imagery that the public can understand. "We try to make what we do tangible. For example, saying that we've recycled X number of tons doesn't mean anything, but if we say that it's enough material to fill the lower bowl of the stadium, you can really picture that. We convert our savings to make them more understandable and relatable, so that it matters to people," says Smolenski. "I don't think that's spin; that's just effective presentation. We're not just talking the talk; we're actually walking the walk. It's not greenwashing. It's not superficial. We believe in greening from the business and philanthropic perspective."

MAKE RECYCLING CONVENIENT, AND ADD SOME

HUMOR: The Eagles use a few key techniques to get fans involved in recycling. Says Smolenski, "We don't want to be in a position where we're preaching because no one likes to be preached to. The important thing is to make it convenient and weave it throughout the organization to consistently apply the practices and procedures. On a game day we use prominent advertising about recycling and environmental responsibility. For example, in the men's restroom over all of the urinals, we have signs that say, 'Recycle your beer here, but recycle your bottle outside in our recycling containers.' "

TAKE ADVANTAGE OF LEAGUE NETWORKS AND

CONTACTS: Teams are discovering new greening opportunities nationwide; take advantage of their knowledge to cut down on your research time. "There are representatives from about 16 NFL teams, maybe more, that participate in quarterly league-based green team calls. We talk about different programs we're doing and new ideas. It's an excellent open forum for getting direct contacts on different issues at clubs around the country that you can reach out to. It's a great resource," says Smolenski. "So now there are many more opportunities to figure out how to get better as a facility, how to start new programs and learn from your peers' experiences. We've had lots of different teams ask for advice and it's all win-win. We happily participate in those kinds of endeavors."

LOOK FOR INSPIRATION FROM OTHER INDUSTRIES:

"We've picked up ideas not only from across the sports industry, but also from the cruise line industry," says Smolenski. "Our vice president of event operations was at a conference and the cutlery he used was a compostable type that he'd never seen before. So he grabbed a few extras and found out where they came from for us to check out. It was stronger than the different kinds of compostable cutlery we've tried here at the NovaCare Complex that would snap when our players used them. So now that we've found a stronger option, we've ramped up our use of the compostable cutlery."

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EVALUATE WHETHER LEED IS RIGHT FOR YOUR

ORGANIZATION: "We've explored LEED options in the past. We felt that Lincoln Financial Field certainly fit the definition of a LEED-certified facility, but [certification] was expensive. We asked ourselves, was the designation worth the cost associated to get it? And in the end we decided we didn't need the LEED certification to justify what we were doing," explains Smolenski. "Achieving a LEED certification wasn't the reason why we were going green—which isn't meant as a knock; it's a very reputable accomplishment. We were going green to be a good corporate partner in our community, because it's the right thing to do. We made an internal decision that we didn't need LEED."

ENDNOTES

- 1 Go Green! Executive Summary 2011 (Philadelphia Eagles, 2011), page 5, http://prod.static.eagles.clubs.nfl.com/assets/images/community/go_green_playbookv9.swf (accessed June 14, 2012)
- 2 Don Smolenski Biography, Eagles Media Guide (Philadelphia Eagles, 2012), paragraph 1, http://legacy.philadelphiaeagles.com/eagles_files/html/Smolenski_1.html (accessed June 14, 2012)
- 3 Go Green! Executive Summary 2011 (Philadelphia Eagles, 2011), page 4, http://prod.static.eagles.clubs.nfl.com/assets/images/community/go_green_playbookv9.swf (accessed June 14, 2012)